

# PROJECT SYNOPSIS

## 1. Project Title

RUAHA CATHOLIC UNIVERSITY Graduate Tracking, Opportunity and Membership System

## 2. Introduction

Graduate tracking systems is essential tools for universities to monitor the progress of their graduates, evaluate employability outcomes and strengthen graduate's engagement. Currently Ruaha Catholic University lacks an integrated digital platform capable of tracking graduates, distributing opportunities and managing graduate's membership subscriptions. This project proposes the development of a comprehensive Graduate Tracking, Opportunity and Membership System to simplify graduate's management and improve access to opportunities.

## 3. Problem Statement

Graduate tracking systems are widely used by higher learning institutions to maintain accurate graduate records, monitor employment outcomes, distribute career opportunities, and manage alumni or graduate contributions. Such systems support institutional planning, enhance graduate engagement, and facilitate reporting to regulatory bodies.

At Ruaha Catholic University, there is currently no integrated digital system for managing graduate information. To address these challenges, this project proposes the development of an automated Graduate Tracking, Opportunity and Membership System. The system will centralize graduate data, enable regular employment status updates, support efficient opportunity distribution, and manage annual membership subscriptions.

## 4. Objectives of the Project

### 4.1 Main Objective

To develop a digital system for tracking Ruaha Catholic university graduates, managing graduate's membership and distributing job-related opportunities.

### 4.2 Specific Objectives

- a. To design a module for graduate registration and profiling.
- b. To implement an employment tracking feature for monitoring graduates career progress.
- c. To create an opportunity distribution dashboard with priority for active members.

- d. To implement annual membership subscription management.
- e. To develop an admin dashboard for reporting and analytics.
- f. To ensure secure authentication for graduates and administrators.
- g. To generate visual analytics and automated reports.

## **5. Project Scope**

The system will include:

- a. Graduate registration and login
- b. Employment status updating
- c. Opportunity posting and access
- d. Annual membership subscription
- e. Admin management tools
- f. Data visualization and analytics

## **6. Significance of the Project**

The system will:

- a. Improve Ruaha Catholic university ability to gather and analyze graduate employment data
- b. Strengthening the bond, engagement and communication between the institution and its graduates
- c. Ensure equitable and prioritized access to opportunities
- d. Support institutional planning and government reporting
- e. Enhance the image and operational efficiency of Ruaha Catholic university

## **7. Methodology**

The system will be developed using the Waterfall Model consisting of:

- a. Requirements Analysis
- b. System Design
- c. Implementation
- d. Testing

- e. Deployment

Technologies include:

- a. **Frontend:** HTML5, CSS3, JavaScript, Bootstrap / Tailwind
- b. **Backend:** Python (Flask/Django) or Node.js (Express)
- c. **Database:** MySQL / PostgreSQL / SQLite
- d. **Authentication & Security:** JWT / bcrypt password hashing
- e. **Analytics & Visualization:** Chart.js, Plotly, or Google Charts
- f. **PDF Reports:** ReportLab (Python) or jsPDF (JavaScript)
- g. **Server & Deployment:** Apache/Nginx, Heroku / Render / AWS

## 8. Expected Results / Deliverables

The project is expected to produce:

- a. A fully functional Graduate Tracking System
- b. Employment tracking and analytics reports
- c. A membership module with subscription monitoring
- d. An opportunity distribution portal
- e. Admin dashboard with charts and data insights
- f. PDF report generation
- g. All documentation (user guide + technical documentation)

## 9. Conclusion

This project proposes a modern, automated, and integrated solution for managing Ruaha Catholic University graduates, employment records, opportunities and membership subscriptions. The system aims to address existing challenges while promoting graduate's engagement and data-driven decision-making.